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## NOTICE OF ALLOWANCE AND FEE(S) DUE

36716

7590

08/27/2008

LADAS & PARRY  
5670 WILSHIRE BOULEVARD, SUITE 2100  
LOS ANGELES, CA 90036-5679

EXAMINER

PEACE, RHONDA S

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 08/27/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,511	01/15/2004	Hans W. Bruesselbach	B-4759NP 621649-7	7055
TITLE OF INVENTION: METHOD AND APPARATUS FOR COMBINING LASER LIGHT				

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	11/28/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to:** **Mail** **Mail Stop ISSUE FEE**  
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**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax** **(571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

36716 7590 08/27/2008

**LADAS & PARRY**  
**5670 WILSHIRE BOULEVARD, SUITE 2100**  
**LOS ANGELES, CA 90036-5679**

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/759,511 01/15/2004

Hans W. Brueselbach

B-4759NP 621649-7

7055

TITLE OF INVENTION: METHOD AND APPARATUS FOR COMBINING LASER LIGHT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	11/28/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
PEACE, RHONDA S	2874	385-116000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB-112) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB-47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/759,511	01/15/2004	Hans W. Bruesselbach	B-4759NP 621649-7	7055
36716	7590	08/27/2008	EXAMINER	
PEACE, RHONDA S				
ART UNIT			PAPER NUMBER	

2874

DATE MAILED: 08/27/2008

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

### Notice of Allowability

**Application No.**

10/759,511

**Examiner**

Rhonda S. Peace

**Applicant(s)**

BRUESSELBACH ET AL.

**Art Unit**

2874

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed 6/10/2008.
2. ☒ The allowed claim(s) is/are 1-5, 7-14, 16, 17, 19-28, 30 and 31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.  
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

/Rhonda S. Peace/ Examiner, AU 2874

/Michelle R. Connelly-Cushwa/ Primary Examiner, AU 2874

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 5/17/2004, 7/7/2004, 10/8/2004, 11/29/2004, 8/20/2007, and 6/10/2008.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 6/10/2008 has been entered.

## **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows: lines 18-22 of paragraph three of the specification is amended to read as follows:

The subject matter of the present application may also be related to co-pending United States Application Serial Number 10/759510 (Attorney Docket Number B-4757NP 621648-9) filed of even date herewith. The disclosure of this U.S. patent application (Attorney Docket Number B-4757NP 621648-9) is incorporated herein by reference in its entirety.

***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 5/17/2004, 7/7/2004, 10/8/2004, 11/29/2004, 8/42/2007, and 6/10/2008 were filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

***Allowable Subject Matter***

Claims 1-5, 7-14, 16, 17, 19-28, 30, and 31 are allowed.

The following is an examiner's statement of reasons for allowance:

Pertaining to claims 1 and 9, the most applicable prior art, considered to be the teachings of Li (US 6,385,371) in view of Wong (US 5,408,556), does not disclose or reasonably suggest a fiber optic apparatus comprising a plurality of optical fibers, each optical fiber having a first end and a second end, said fibers being fused together along a section of each optical fiber proximate said first end of each said fiber to form a fused section having a fiber axis, wherein said fused section of said fibers is tapered to form a tapered region and said second end of each of said fibers is detached from one another. Moreover, said apparatus comprises a facet being formed by a combination of cutting and polishing, or by cleaving, said tapered region in a direction orthogonal to said fiber axis, wherein said facet has a cross-section other than approximately equal to a cross-section of an individual single mode fiber. The combination of Li and Wong fails to disclose or suggest a plurality of optical fibers bundled, fused, and tapered, and further fails to disclose or reasonably suggest a facet as required by claims 1 and 9. Li discloses a bulk element formed without fusing, and forming the structure of Li via a

fusing process renders Li unsatisfactory for its intended purpose and changes its principle of operation.

King (US 6,208,678), also of record, discloses a tapered bundle of single mode fibers is necked down to match the core diameter of a multi-mode fiber, and the core diameter of the taper is matched to the core diameter of said multi-mode fiber. The outer diameter of the bundle in King is tapered down to commensurate with said multi-mode fiber to allow for easier matching of the end surface of the taper region with the end surface of the multi-mode fiber. Since the typical commercially-available single mode fibers and multimode fibers both have a cladding diameter of 125 microns, one of ordinary skill in the art would likely infer that King tapers the bundle down to a diameter of 125 microns to mate with the multi-mode fiber. Thus, the facet would not be expected to have "a cross-section other than approximately equal to the cross-section of a single mode fiber," as recited in claim 1.

For these reasons, claims 1 and 9 are considered patentable over the most applicable prior art and are in current condition for allowance.

Concerning claim 5, the most applicable prior art, considered to be the teachings of Wong (US 5,408,556) in view of Russell et al (US 4,932,747), does not disclose or reasonably suggest a fiber optic apparatus comprising a plurality of optical fibers, each optical fiber having a first end and a second end, said fibers being fused together along a section of each optical fiber proximate said first end of each said fiber to form a fused section having a fiber axis, wherein said fused section of said fibers is tapered to form a tapered region, and a facet being formed a combination of by cutting and polishing, or



by cleaving, said tapered region, wherein said plurality of fibers disposed in said fused section are stretched to provide a desired amount of optical coupling between each optical fiber, and each said fiber is adapted to receive an optical input from a plurality of optical inputs at said second end, and wherein said plurality of optical inputs are emitted into free space at the said facet as a single combined optical output. The combination of Wong in view of Russell et al does not disclose or reasonably suggest a fiber optic apparatus as described above, wherein the said optical inputs are emitted into free space at the said facet. Modifying Wong such that the optical inputs are emitted into free space at the facet cancels the lens coupled to the facet of Wong, and considered an essential feature of Wong. Therefore, the combination fails to teach or reasonably suggest the apparatus as required by claim 5, and claim 5 is in condition for allowance.

Addressing claims 11-13, 16, 17, and 19, the most applicable prior art, considered to be the teachings of Wong (US 5,408,556) in view of the knowledge of one of ordinary skill in the art, does not disclose or reasonably suggest a method for coupling light comprising providing a plurality of optical fibers, each fiber having a first end, second end, and a central core extending between said first and second ends, fusing said fibers together along a section of each fiber proximate said first end to form a fused section, tapering said fused section such that a core diameter of each fiber proximate said first end is smaller than the core diameter proximate said second end, wherein tapering said fused section comprises uniformly stretching said plurality of fibers to provide a desired amount of optical coupling between each said fiber, forming a facet by a combination of cutting and polishing, or by cleaving, said fused section in a

direction perpendicular to said core, and illuminating said facet with a single optical input traveling in free space, and distributing said single input amongst each said fiber in said plurality of fibers to provide a plurality of distributed optical outputs. The combination of Wong in view of the knowledge of one of ordinary skill in the art does not disclose or reasonably suggest a fiber optic apparatus as described above, wherein the said facet is illuminated with a single optical input traveling in free space. Modifying Wong such that the facet is illuminated with a single optical input traveling in free space cancels the lens coupled to the facet of Wong, and considered an essential feature of Wong. Therefore, the combination fails to teach or reasonably suggest the method as required by claims 11-13, 16, 17, and 19, and claims 11-13, 16, 17, and 19, are in condition for allowance.

With regard to claim 14, the most applicable prior art, considered to be the teachings of Wong (US 5,408,556) in view of Russell et al (US 4,932,747), does not disclose or reasonably suggest a method for coupling light comprising providing a plurality of optical fibers, each fiber having a first end, second end, and a central core extending between said first and second ends, fusing said fibers together along a section of each fiber proximate said first end to form a fused section, tapering said fused section such that a core diameter of each fiber proximate said first end is smaller than the core diameter proximate said second end, wherein tapering said fused section comprises uniformly stretching said plurality of fibers to provide a desired amount of optical coupling between each said fiber, forming a facet by a combination of cutting and polishing, or by cleaving, said fused section in a direction perpendicular to said

core, and providing an optical input at said second end of each said fiber, and further emitting said inputs as a single combined output into free space at said facet, thereby illuminating said facet with light. The combination of Wong in view of Russell et al does not disclose or reasonably suggest a fiber optic apparatus as described above, wherein the said optical inputs are emitted into free space at the said facet. Modifying Wong such that the optical inputs are emitted into free space at the facet cancels the lens coupled to the facet of Wong, and considered an essential feature of Wong. Therefore, the combination fails to teach or reasonably suggest the apparatus as required by claim 14, and claim 14 is in condition for allowance.

Pertaining to claims 20-26, the most applicable prior art, considered to be the teachings of Li (US 6,385,371) in view of Wong (US 5,408,556), does not disclose or reasonably suggest an apparatus for coupling light comprising a plurality of single mode optical fibers, each optical fiber having a first end and a second end, said fibers being fused together along a section of each optical fiber proximate said first end of each said fiber to form a fused section having a fiber axis, wherein said fused section of said fibers is tapered to form a tapered region, and a facet being formed by a combination of cutting and polishing, or by cleaving, said tapered region in a direction orthogonal to said fiber axis, wherein said facet is adapted to receive a single optical input, the single input being distributed amongst each fiber in said plurality of fibers, wherein said optical input has a diameter and said diameter at said first end of a given fiber in said plurality of fibers is larger than the diameter of the same optical input at said second end of the given fiber, and wherein said facet has a cross-section other than approximately equal

to the cross-section of an individual single mode fiber. The combination of Li and Wong fails to disclose or reasonably suggest a plurality of single mode optical fibers bundled, fused, and tapered, and further fails to disclose or reasonably suggest a facet as required by claims 20-26. Li discloses a bulk element formed without fusing, and forming the structure of Li via a fusing process renders Li unsatisfactory for its intended purpose and changes its principle of operation. Therefore, claims 20-26 are considered patentable over the prior art, as the closest prior art fails to teach or reasonably suggest limitations recited therein.

Concerning claims 27 and 31, the most applicable prior art, considered to be the teachings of Li (US 6,385,371) in view of Wong (US 5,408,556), does not disclose or reasonably suggest a fiber optic apparatus for comprising a plurality of single mode silica optical fibers, each optical fiber having a first end and a second end, said fibers being fused together along a section of each optical fiber proximate said first end of each said fiber to form a fused section having a fiber axis, wherein said fused section of said fibers is tapered to form a tapered region, and a facet being formed by a combination of cutting and polishing, or by cleaving, said tapered region in a direction orthogonal to said fiber axis, and wherein said facet has a cross-section other than approximately equal to the cross-section of an individual single mode fiber. The combination of Li and Wong does not disclose or reasonably suggest a plurality of single mode silica optical fibers bundled, fused, and tapered, and further fails to disclose or reasonably suggest a facet as required by claims 27 and 31. Li discloses a bulk element formed without fusing, and forming the structure of Li via a fusing process

renders Li unsatisfactory for its intended purpose and changes its principle of operation. Therefore, claims 27 and 31 are considered patentable over the prior art, as the closest prior art fails to teach or reasonably suggest limitations recited therein.

Addressing claims 2-4, 7, 8, 10, 28, and 30, the most applicable prior art, considered to be the teachings of Wong (US 5,408,556) in view of the knowledge of one of ordinary skill in the art, does not disclose or reasonably suggest a fiber optic apparatus comprising a plurality of optical fibers, each optical fiber having a first end and a second end, said fibers being fused together along a section of each optical fiber proximate said first end of each said fiber to form a fused section having a fiber axis, wherein said fused section of said fibers is tapered to form a tapered region, and a facet being formed by a combination of cutting and polishing, or by cleaving, said tapered region, wherein said plurality of fibers disposed in said fused section are stretched to provide a desired amount of optical coupling between each optical fiber, wherein said facet is adapted to receive a single optical input traveling in free space. Moreover, each of said fibers comprises a core, cladding and mode shape, wherein the sum of the mode shapes of the fibers is calculated and the core/cladding size ratio and stretch is selected, to maximize coupling of the free space beam into the core ensemble, wherein said single optical input is distributed amongst each fiber in said plurality of optical fibers. The combination of Wong in view of the knowledge of one of ordinary skill in the art does not disclose or reasonably suggest a fiber optic apparatus as described above, wherein the said facet is illuminated with a single optical input traveling in free space. Modifying Wong such that the facet is illuminated with a single optical input traveling in

free space cancels the lens coupled to the facet of Wong, and considered an essential feature of Wong. Therefore, the combination fails to teach or reasonably suggest the method as required by claims 2-4, 7, 8, 10, 28, and 30, and claims 2-4, 7, 8, 10, 28, and 30, are in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The following art made of record and not relied upon is considered pertinent to applicant's disclosure: Hsu et al (US 4,954,152) who teaches where fibers are to be fused together by heating, it is preferable to cleave said fibers such that the cleaved face is "perpendicular to the axis of the fiber for simplification of handling and facilitating even heating of the fiber ends, and Minden et al (US 7,342,947) and Minden et al (US 7,274,717) who each teaches a dark fiber laser coupler.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571)272-8580. The examiner can normally be reached on M-F (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rhonda S. Peace/  
Examiner, Art Unit 2874

/Michelle R. Connelly-Cushwa/  
Primary Examiner, Art Unit 2874